IN THE CLAIMS

1. (Currently amended) A polarizing plate comprising:

    a) a polarizing film; and

    b) a protection layer of an unstretched transparent film comprising a cyclic olefin-based addition polymer,

    wherein the cyclic olefin-based addition polymer is a homopolymer of the compound represented by the following Chemical Formula 1, or a copolymer of two or more kinds of the compounds represented by the following Chemical Formula 1; and

    the transparent film has retardation value (R_{th}) of 60 to 1000 nm, calculated by the following equation 1, when the thickness of the transparent film is set to 30 to 200 μm:

[Equation 1]

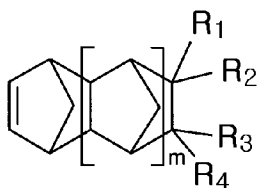$$R_{th} = \Delta \, (n_y - n_z) \times d$$

    wherein n_y is a refractive index of in-plane fast axis, measured at a wavelength of 550 nm,

    n_z is a refractive index toward thickness direction, measured at a wavelength of 550 nm, ~~and~~

    d is a thickness of the film, and

    <u>wherein the transparent film is an optically anisotropic film having a refractive index satisfying $n_x \cong n_y > n_z$ wherein n_x is refractive index of in-plane slow axis, n_y is refractive index of fast axis, and n_z is refractive index toward thickness direction</u>;
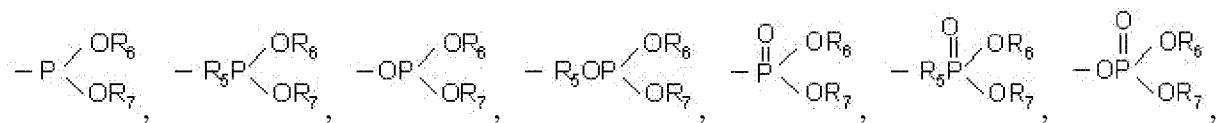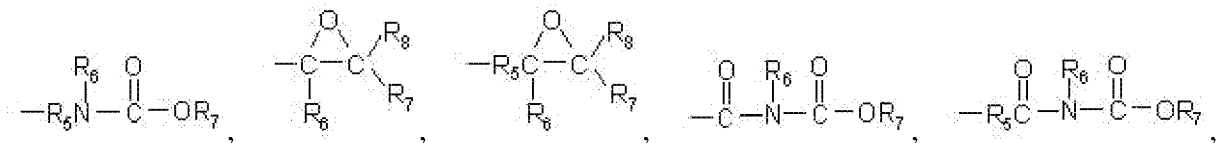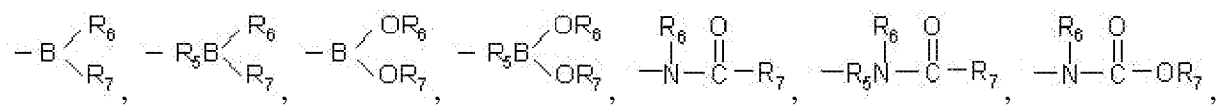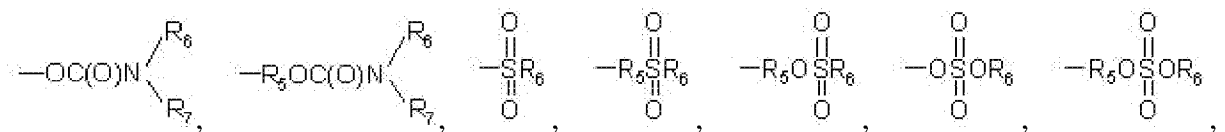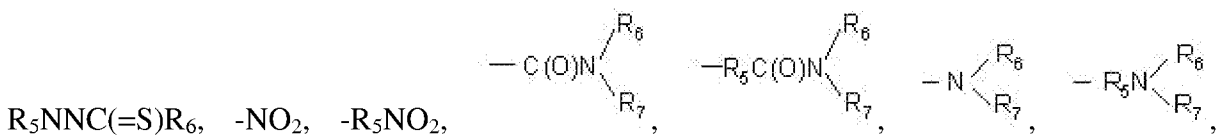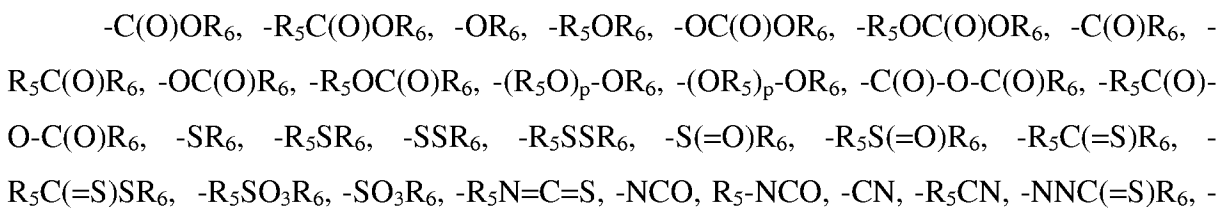
[Chemical Formula 1]

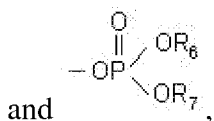   wherein m is an integer of 0 to 4,

    at least one of R_1, R_2, R_3 and R_4 is a polar functional group, the others are non-polar functional group, and R_1, R_2, R_3 and R_4 can be bonded together to form an alkylidene group

having 1 to 10 carbon atoms, a saturated or unsaturated cyclic group having 4 to 12 carbon

atoms, or an aromatic cyclic compound having 6 to 24 carbon atoms,

the non-polar functional group is selected from the group consisting of a hydrogen; halogen; straight or branched alkyl, alkenyl or vinyl having 1 to 20 carbon atoms; cycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or alkynyl having 3 to 20 carbon atoms,

the polar functional group is selected from the group consisting of linear or branched haloalkyl, haloalkenyl or halovinyl having 1 to 20 carbon atoms; halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; haloalkynyl having 3 to 20 carbon atoms; andnon-hydrocarbonaceous polar group selected from the group consisting of following formulae,

$-C(O)OR_6$, $-R_5C(O)OR_6$, $-OR_6$, $-R_5OR_6$, $-OC(O)OR_6$, $-R_5OC(O)OR_6$, $-C(O)R_6$, $-R_5C(O)R_6$, $-OC(O)R_6$, $-R_5OC(O)R_6$, $-(R_5O)_p$-OR_6, $-(OR_5)_p$-OR_6, $-C(O)$-O-$C(O)R_6$, $-R_5C(O)$-O-$C(O)R_6$, $-SR_6$, $-R_5SR_6$, $-SSR_6$, $-R_5SSR_6$, $-S(=O)R_6$, $-R_5S(=O)R_6$, $-R_5C(=S)R_6$, $-R_5C(=S)SR_6$, $-R_5SO_3R_6$, $-SO_3R_6$, $-R_5N=C=S$, $-NCO$, R_5-NCO, $-CN$, $-R_5CN$, $-NNC(=S)R_6$,

$R_5NNC(=S)R_6$, $-NO_2$, $-R_5NO_2$,

$$-OP \overset{\overset{O}{\parallel}}{\Big\langle} \overset{OR_6}{\underset{OR_7}{}}$$

and ,

wherein each R_5 is a linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl or haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or, alkynyl or haloalkynyl having 3 to 20 carbon atoms,

each of R_6 and R_7 is a hydrogen; halogen; linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl, alkoxy, haloalkoxy, carbonyloxy, halocarbonyloxy having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl, haloaryl, aryloxy, or haloaryloxy having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; alkynyl or haloalkynyl having 3 to 20 carbon atoms, and

p is an integer of 1 to 10.

2. (Original) The polarizing plate according to Claim 1, wherein the transparent film is of negative C-plate type.

3. (Previously presented) The polarizing plate according to Claim 1, wherein the transparent film is laminated on one side of the polarizing film.

4. (Original) The polarizing plate according to Claim 1, wherein the transparent film is laminated on both sides of the polarizing film.

5. to 7. (Canceled)

8. (Currently amended) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer further comprises a non-polar functional group.

4

9. (Original) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer comprises a polar functional group.

10. (Original) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer is a homopolymer of norbornene-based monomers comprising polar functional group, or a copolymer of norbornene-based monomers comprising different polar functional groups.

11. (Previously presented) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer is a copolymer of norbornene-based monomers comprising non-polar functional group and norbornene-based monomers comprising polar functional group.

12. (Original) The polarizing plate according to Claim 1, wherein the transparent film comprises a blend of one or more kinds of cyclic olefin-based addition polymers.

13, (Original) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer is prepared by a method comprising addition polymerizing norbornene-based monomers in the presence of Group 10 transition metal catalyst.

14. (Original) The polarizing plate according to Claim 1, wherein the cyclic olefin-based addition polymer is prepared by a method which comprise contacting norbornene-based monomers comprising polar functional group with a catalyst component of a catalyst system comprising:

     i) a catalyst component of Group 10 transition metal compound;

     ii) a cocatalyst component of an organic compound that comprises Group 15 element and has noncovalent electron pair capable of functioning as an electron donor; and

     iii) a cocatalyst component of a salt comprising Group 13 element capable of offering an anion that can be weakly coordinated to the transition metal

     to effect addition polymerization.

15. (Original) The polarizing plate according to Claim 1, wherein the polarizing plate comprises a transparent optical film prepared from cyclic olefin-based addition polymer comprising polar functional group of ester or acetyl group, which is prepared by a method comprising contacting norbornene-based monomers comprising a polar functional group of ester or acetyl group with a catalyst component of a catalyst system comprising:

     i) Group 10 transition metal compound;

     ii) a compound comprising a neutral Group 15 electron donor ligand having a cone angle of at least 160°; and

     iii) a salt capable of offering an anion that can be weakly coordinated to the i) transition metal

     to effect addition polymerization.

16. (Original) The polarizing plate according to Claim 1, wherein the transparent film is prepared by a solution casting which comprises the step of dissolving cyclic olefin-based addition polymer in a solvent and casting the solution into film.

17. (Original) The polarizing plate according to Claim 1, wherein one or more kinds of surface treatments selected from the group consisting of corona discharge, glow discharge, flam treatment, acid treatment, alkali treatment, UV irradiation, and coating are conducted on the transparent film.

18. (Currently amended) A unified polarizing plate comprising an unstretched optically anisotropic transparent film laminated on at least one side of a polarizing film, said optically anisotropic transparent film has retardation value (R_{th}) of 60 to 1000 nm, calculated by the following equation 1, phase difference ratio (R_{450}/R_{550}) of 1 to 1.05 and (R_{650}/R_{550}) of 0.95 to 1 (wherein R_{450} is phase difference value at a wavelength of 450 nm, R_{550} is a phase difference value at a wavelength of 550 nm, and R_{650} is a phase difference value at a wavelength of 650 nm):

[Equation 1]

$$R_{th} = \Delta\left(n_y - n_z\right) \times d$$

wherein, n_y is a refractive index of in-plane fast axis, measured at a wavelength of 550 nm,
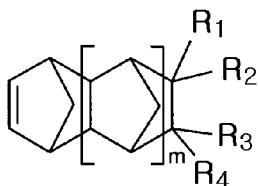
n_z is a refractive index toward thickness direction, measured at a wavelength of 550 nm, and

d is a thickness of a film, and

wherein the optically anisotropic transparent film has refractive index satisfying $n_x \cong n_y > n_z$ wherein n_x is refractive index of in-plane slow axis, n_y is refractive index of fast axis, and n_z is refractive index toward thickness direction,

wherein the optically anisotropic transparent film comprises a homopolymer of the compound represented by the following Chemical Formula 1, or a copolymer of two or more kinds of the compounds represented by the following Chemical Formula 1:

[Chemical Formula 1]
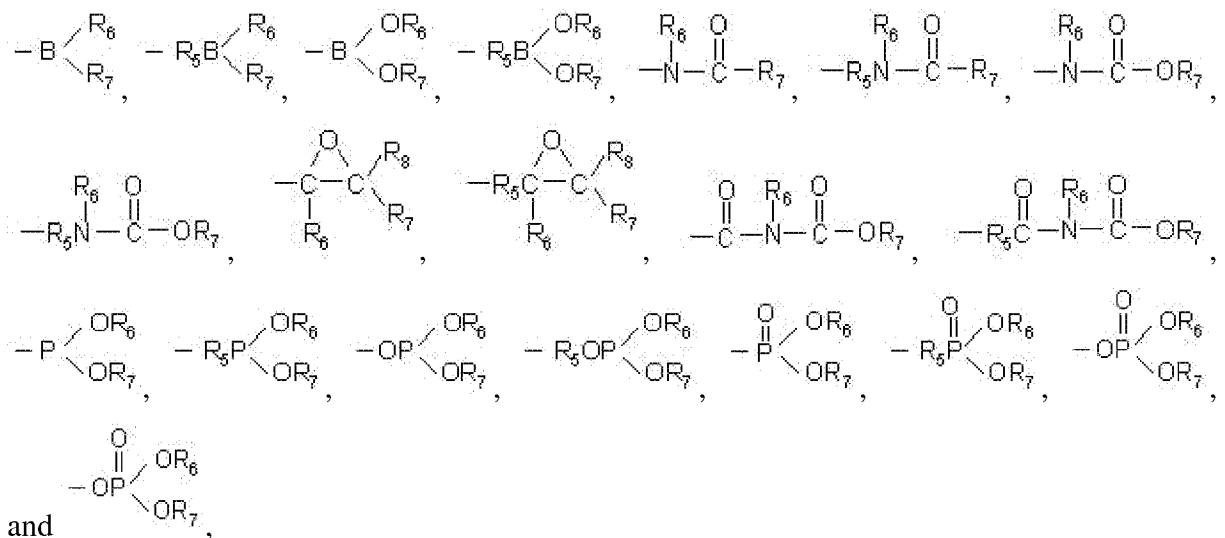
wherein m is an integer of 0 to 4,

at least one of R_1, R_2, R_3 and R_4 is a polar functional group, the others are non-polar functional group, and R_1, R_2, R_3 and R_4 can be bonded together to form an alkylidene group having 1 to 10 carbon atoms, a saturated or unsaturated cyclic group having 4 to 12 carbon atoms, or an aromatic cyclic compound having 6 to 24 carbon atoms,

the non-polar functional group is selected from the group consisting of a hydrogen; halogen; straight or branched alkyl, alkenyl or vinyl having 1 to 20 carbon atoms; cycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or alkynyl having 3 to 20 carbon atoms,

the polar functional group is selected from the group consisting of linear or branched haloalkyl, haloalkenyl or halovinyl having 1 to 20 carbon atoms; halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; haloalkynyl having 3 to 20 carbon atoms; and non-hydrocarbonaceous polar group selected from the group consisting of following formulae,

$-C(O)OR_6$, $-R_5C(O)OR_6$, $-OR_6$, $-R_5OR_6$, $-OC(O)OR_6$, $-R_5OC(O)OR_6$, $-C(O)R_6$, $-R_5C(O)R_6$, $-OC(O)R_6$, $-R_5OC(O)R_6$, $-(R_5O)_p-OR_6$, $-(OR_5)_p-OR_6$, $-C(O)-O-C(O)R_6$, $-R_5C(O)-O-C(O)R_6$, $-SR_6$, $-R_5SR_6$, $-SSR_6$, $-R_5SSR_6$, $-S(=O)R_6$, $-R_5S(=O)R_6$, $-R_5C(=S)R_6$, $-R_5C(=S)SR_6$, $-R_5SO_3R_6$, $-SO_3R_6$, $-R_5N=C=S$, $-NCO$, R_5-NCO, $-CN$, $-R_5CN$, $-NNC(=S)R_6$, -

$R_5NNC(=S)R_6$, $-NO_2$, $-R_5NO_2$,

8

$$-B\diagdown\genfrac{}{}{0pt}{}{R_6}{R_7}, \quad -R_5B\diagdown\genfrac{}{}{0pt}{}{R_6}{R_7}, \quad -B\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -R_5B\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-R_7, \quad -R_5\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-R_7, \quad -\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-OR_7,$$

$$-R_5\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-OR_7, \quad -\overset{O}{\underset{R_6}{C}}-C\diagup^{R_8}_{R_7}, \quad -R_5\overset{O}{\underset{R_6}{C}}-C\diagup^{R_8}_{R_7}, \quad -\overset{O}{\underset{}{C}}-\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-OR_7, \quad -R_5\overset{O}{\underset{}{C}}-\overset{R_6}{\underset{}{N}}-\overset{O}{\underset{}{C}}-OR_7,$$

$$-P\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -R_5P\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -OP\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -R_5OP\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -\overset{O}{P}\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -R_5\overset{O}{P}\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}, \quad -O\overset{O}{P}\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7},$$

and $\quad -O\overset{O}{P}\diagdown\genfrac{}{}{0pt}{}{OR_6}{OR_7}$,

wherein each R_5 is a linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl or haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or, alkynyl or haloalkynyl having 3 to 20 carbon atoms,

each of R_6 and R_7 is a hydrogen; halogen; linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl, alkoxy, haloalkoxy, carbonyloxy, halocarbonyloxy having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl, haloaryl, aryloxy, or haloaryloxy having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; alkynyl or haloalkynyl having 3 to 20 carbon atoms, and

p is an integer of 1 to 10.

19. (Original) The unified polarizing plate according to Claim 18, wherein the optically anisotropic transparent film has light transmittance of at least 90% at a wavelength of 400 to 800 nm.

20. (Canceled)

21. (Original) The unified polarizing plate according to Claim 18, wherein the optically anisotropic transparent film has retardation value (R_{th}) of 60 to 1000 nm, calculated by the following equation 1, when the thickness of the optically anisotropic transparent film is set to 30 to 200 μm:

[Equation 1]

$$R_{th} = \Delta (n_y - n_z) \times d$$

wherein n_y is a refractive index of in-plane fast axis, measured at a wavelength of 550 nm,

n_z is a refractive index toward thickness direction, measured at a wavelength of 550 nm, and

d is a thickness of the film.

22. (Canceled)

23. (Original) The unified polarizing plate according to Claim 18, wherein the polarizing plate simultaneously performs functions as a negative C-plate for optical compensation and as a polarizing plate.

24. (Currently amended) A method for preparing a polarizing plate having negative refractive index toward thickness direction, comprising the steps of:

a) conducting addition polymerization of norbornene-based monomers according to the following Chemical Formula 1, to prepare a norbornene-based addition polymer;

b) dissolving the norbornene-based addition polymer in a solvent to prepare a norbornene-based addition polymer solution;

c) coating or casting the norbornene-based addition polymer solution on a hard surface and drying to prepare a cast film with retardation value (Rth) of 60-1000 nm, calculated by the following Equation 1; and

d) laminating the cast film on a polarizing film

[Equation 1]

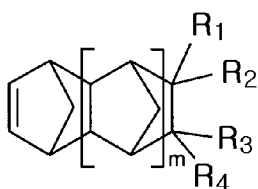$$R_{th} = \Delta\,(n_y - n_z) \times d$$

wherein, n_y is a refractive index of in-plane fast axis, measured at a wavelength of 550 nm,

n_z is a refractive index toward thickness direction, measured at a wavelength of 550 nm, ~~and~~

d is a thickness of a film, and

wherein the cast film is an optically anisotropic film having a refractive index satisfying $n_x \cong n_y > n_z$ wherein n_x is refractive index of in-plane slow axis, n_y is refractive index of fast axis, and n_z is refractive index toward thickness direction;
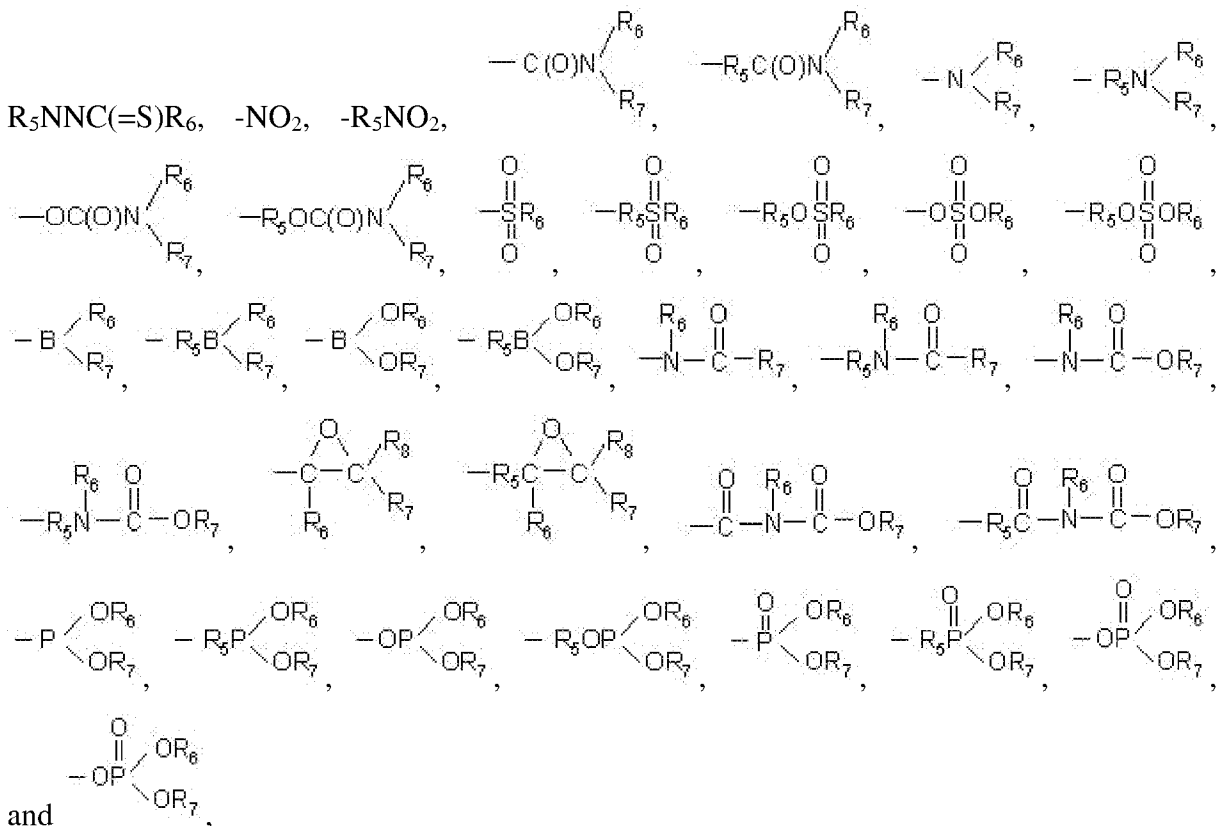
[Chemical Formula 1]

wherein m is an integer of 0 to 4,

at least one of R_1, R_2, R_3 and R_4 is a polar functional group, the others are non-polar functional group, and R_1, R_2, R_3 and R_4 can be bonded together to form an alkylidene group having 1 to 10 carbon atoms, a saturated or unsaturated cyclic group having 4 to 12 carbon atoms, or an aromatic cyclic compound having 6 to 24 carbon atoms,

the non-polar functional group is selected from the group consisting of a hydrogen; halogen; straight or branched alkyl, alkenyl or vinyl having 1 to 20 carbon atoms; cycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or alkynyl having 3 to 20 carbon atoms,

the polar functional group is selected from the group consisting of linear or branched haloalkyl, haloalkenyl or halovinyl having 1 to 20 carbon atoms; halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; haloaralkyl having 7 to 15 carbon atoms,

substituted or unsubstituted with hydrocarbon; haloalkynyl having 3 to 20 carbon atoms; and non-hydrocarbonaceous polar group selected from the group consisting of following formulae,

$-C(O)OR_6$, $-R_5C(O)OR_6$, $-OR_6$, $-R_5OR_6$, $-OC(O)OR_6$, $-R_5OC(O)OR_6$, $-C(O)R_6$, $-R_5C(O)R_6$, $-OC(O)R_6$, $-R_5OC(O)R_6$, $-(R_5O)_p-OR_6$, $-(OR_5)_p-OR_6$, $-C(O)-O-C(O)R_6$, $-R_5C(O)-O-C(O)R_6$, $-SR_6$, $-R_5SR_6$, $-SSR_6$, $-R_5SSR_6$, $-S(=O)R_6$, $-R_5S(=O)R_6$, $-R_5C(=S)R_6$, $-R_5C(=S)SR_6$, $-R_5SO_3R_6$, $-SO_3R_6$, $-R_5N=C=S$, $-NCO$, R_5-NCO, $-CN$, $-R_5CN$, $-NNC(=S)R_6$, $-R_5NNC(=S)R_6$, $-NO_2$, $-R_5NO_2$,

wherein each R_5 is a linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or unsubstituted with hydrocarbon; aryl or haloaryl having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; or, alkynyl or haloalkynyl having 3 to 20 carbon atoms,

each of R_6 and R_7 is a hydrogen; halogen; linear or branched alkyl, haloalkyl, alkenyl, haloalkenyl, vinyl, halovinyl, alkoxy, haloalkoxy, carbonyloxy, halocarbonyloxy having 1 to 20 carbon atoms; cycloalkyl or halocycloalkyl having 4 to 12 carbon atoms, substituted or

unsubstituted with hydrocarbon; aryl, haloaryl, aryloxy, or haloaryloxy having 6 to 40 carbon atoms, substituted or unsubstituted with hydrocarbon; aralkyl or haloaralkyl having 7 to 15 carbon atoms, substituted or unsubstituted with hydrocarbon; alkynyl or haloalkynyl having 3 to 20 carbon atoms, and

p is an integer of 1 to 10.

25. (Original) The method according to Claim 24, wherein the lamination in the step d) is conducted after conducting surface treatment of the cast film selected from the group consisting of corona discharge, glow discharge, flame treatment, acid treatment, alkali treatment, UV irradiation and coating.

26. (Original) The method for preparing a polarizing plate according to Claim 24, wherein the polarizing plate comprises a protection layer placed on one side or both sides of the polarizing film.

27. (Previously presented) A liquid crystal display comprising the polarizing plate described in Claim 1.

28. (Currently amended) The liquid crystal display according to Claim 27, wherein the liquid crystal display comprises liquid crystal cell mode, of which liquid crystal layer has refractive index satisfying $n_x \cong n_y < n_z$, when power of liquid crystal display device is ON or OFF [[(]]wherein n_x is refractive index of in-plane slow axis, n_y is refractive index of in-plane fast axis, and n_z is refractive index toward thickness direction[[)]].